WHAT IS CLAIMED IS:

1. A method for measuring wedge tightness in an electromechanical device, said method comprising:

providing a top ripple spring that includes a conductive portion and a non-conductive portion;

positioning the top ripple spring at least partially within a stator slot defined within the electromechanical device;

mapping a profile of the top ripple spring; and

using the mapped profile to determine the wedge tightness in the electromechanical device.

2. A method in accordance with Claim 1 wherein the mapped profile corresponds to a particular pressure on the top ripple spring.

3. A method in accordance with Claim 1 wherein for measuring wedge tightness in a electromechanical device comprises measuring wedge tightness in an electrical generator.

4. A method in accordance with Claim 1 further comprising inserting at least one wedge into the stator slot until the top ripple spring is compressed between approximately four one-thousandths of an inch and six one-thousandths of an inch thick.

5. A method in accordance with Claim 1 wherein mapping a profile of the top ripple spring comprises:

transmitting energy from an excitation coil to the conductive portion of the top ripple spring; and

receiving energy reflected from the conductive portion using a sensing coil.

6. A method in accordance with Claim 5 further comprising repositioning a measuring apparatus along the stator slot until the entire top ripple spring profile is mapped.

7. A method in accordance with Claim 1 wherein providing a top ripple spring that includes a conductive portion further comprises providing a top ripple spring wherein the conductive portion has a profile that is substantially similar to a profile of the top ripple spring.

8. A stator wedge measurement system comprising:

a top ripple spring comprising a conductive portion and a non-conductive portion, said top ripple spring positioned at least partially within a stator slot; and

a measuring apparatus for mapping a profile of the top ripple spring, said measuring apparatus configured to determine the wedge tightness in an electromechanical device based on the mapped profile.

9. A stator wedge measurement system in accordance with Claim 8 wherein said each said profile mapped of said top ripple spring by said measuring apparatus corresponds to a particular pressure induced on said top ripple spring.

10. A stator wedge measurement system in accordance with Claim 8 wherein said measuring device is further configured to determine a wedge tightness in an electric generator.

11. A stator wedge measurement system in accordance with Claim 8 further comprising at least one wedge configured to compress said top ripple spring until said top ripple spring is between approximately four one-thousandths of an inch and approximately six one-thousandths of an inch thick.

12. A stator wedge measurement system in accordance with Claim 8 wherein said measuring apparatus is further configured to:

transmit energy from an excitation coil to said top ripple spring conductive portion; and

receive energy reflected from said conductive portion using a sensing coil.

13. A stator wedge measurement system in accordance with Claim 8 wherein said measurement apparatus is further configured to transition along the stator slot during mapping of said top ripple spring.

14. A stator wedge measurement system in accordance with Claim 8 wherein a profile of said top ripple spring conductive portion is substantially similar to a profile of said top ripple spring.

15. An electric generator comprising:

a stator comprising a plurality of slots;

a plurality of top ripple springs, each said top ripple spring comprising a conductive portion and a non-conductive portion, each said top ripple spring positioned at least partially within each said respective stator slot; and

a measuring apparatus for mapping a profile of each said top ripple spring, said measuring apparatus configured to determine the wedge tightness in said electric generator based on the mapped profile.

16. An electric generator in accordance with Claim 15 wherein each said profile mapped of said top ripple spring by said measuring apparatus corresponds to a particular pressure induced on said top ripple spring.

17. An electric generator in accordance with Claim 15 further comprising at least one wedge configured to compress said top ripple spring until said

top ripple spring is between approximately four one-thousandths of an inch and approximately six one-thousandths of an inch thick.

18. An electric generator in accordance with Claim 15 wherein said measuring apparatus is further configured to:

transmit energy from an excitation coil to said top ripple spring conductive portion; and

receive energy reflected from said conductive portion using a sensing coil.

19. An electric generator in accordance with Claim 15 wherein said measurement apparatus is further configured to transition along said stator slot during mapping of said top ripple spring.

20. An electric generator in accordance with Claim 15 wherein a profile of said top ripple spring conductive portion is substantially similar to a profile of said top ripple spring.